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**(54) ELECTRODE SUBSTRATE FOR BIPOLAR LEAD-STORAGE BATTERY****(57)Abstract:**

**PURPOSE:** To obtain an electrode substrate for a bipolar lead-storage battery having good electrolyte-impermeability, conductivity, and corrosion resistance and long life by using a glassy carbon plate as an electrode substrate base and by forming a conductive, oxidation resistant film on the surface to be coated with a cathode active material.

**CONSTITUTION:** An electrode substrate consists of a glassy carbon plate and a conductive, oxidation resistant film formed on the surface to be coated with a cathode active material. The glassy carbon plate has high electrolyte- impermeability, low electrical resistance, and low density which are the requirement to the electrode for a bipolar lead-acid battery. In addition, it has an advantage capable of making a very thin plate. A SnO<sub>2</sub> film or TiO<sub>2</sub> film used as the conductive, oxidation resistant film is strongly bonded on the surface of the substrate base and does not separate from the substrate base even after long use. The cathode surface keeps good corrosion resistance over the long period of time.

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